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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,282

08/23/2006

Mats Leijon

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EXAMINER

WAKS, JOSEPH

ART UNIT

PAPER NUMBER

2834

MAIL DATE

DELIVERY MODE

07/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/598,282	Applicant(s) LEIJON ET AL.	
	Examiner Joseph Waks	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>082306</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In line 1, "The invention relates", in line 2, "According to the invention", and in line 3, "The invention also relates" are phrases which can be implied.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5-8, 10 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Rowe (US 4,520,273).

Rowe discloses invention as claimed: a water turbine 10 and a rotary electrical generator the rotor 22 of which is connected to the turbine, which turbine includes axially directed blades 26 wherein each blade is individually directly connected to the rotor of the generator.

Re claim 17, Rowe discloses the structure as claimed. Claims 17 that merely recites connecting and using the disclosed features together is inherent to the disclosed structure.

5. Claims 1, 5-8, 11, 12 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Belik (SU 1617180).

Belik discloses invention as claimed: a water turbine 1 and a rotary electrical generator 3, 5 with the rotor 5 of connected to the turbine, which turbine includes axially directed blades 8 wherein each blade is individually directly connected to the rotor of the generator, wherein the rotor is situated radially outside the stator and in the same axial plane as the stator.

Re claim 17, Rowe discloses the structure as claimed. Claims 17 that merely recites connecting and using the disclosed features together is inherent to the disclosed structure.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-8, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horiuchi et al. (US 4,872,805) in view of Miyake et al. (EP 1096144A2).

Horiuchi et al. disclose a water turbine 51 and a rotary electrical generator 57 the rotor 85 of which is connected to the turbine, which turbine includes axially directed blades 64, 65 wherein each blade is connected to the rotor of the generator, wherein the turbine includes a first group of blades directed towards a first direction from the rotor and a second group of blades directed towards the opposite direction from the rotor, with each group having more than 3 blades and in co-alignment with the first group, stay means 63. However, Horiuchi et al. do not disclose each of the blades individually directly connected to the rotor of the generator.

Miyake et al. disclose a turbine having blades 4 individually directly connected to the rotor of the generator 5, for the purpose of providing compact and efficient power generating device.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the turbine as taught by Horiuchi et al. and to provide the blades individually directly connected to the rotor of the generator as taught by Miyake et al. for the purpose of providing compact and efficient power generating device.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rowe (US 4,520,273) in view of Grondahl (US 2,112,889).

Rowe discloses the assembly essentially as claimed. However, Rowe does not disclose the blades connected to the rotor via a joint device.

Grondahl discloses an assembly including a water turbine having blades 8 connected to the rotor 4 via joint device 9 for the purpose of exposing the whole surface of the blade to the flowing stream when moving into direction parallel to the flow, and to minimize the exposed surface of the blade when moving against the flow.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to the assembly as taught by Rowe and to provide the blades connected to the rotor via a joint device as taught by Grondahl for the purpose of exposing the whole surface of the blade to the flowing stream when moving into direction parallel to the flow, and to minimize the exposed surface of the blade when moving against the flow.

9. Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belik (SU 1617180) in view of Larsson et al. (US 2002/0163272).

Belik discloses assembly essentially as claimed. However, Belik does not disclose the assembly having the stator wound with a high- voltage cable provided with a core of conducting material, a first layer of semiconducting material surrounding the conducting material, a layer of insulating material surrounding the first layer and a second layer of semiconducting material surrounding the insulating material.

Larsson et al. disclose a large diameter stator for a hydro-generator having with a high- voltage cable provided with a core of conducting material, a first layer of semiconducting material surrounding the conducting material, a layer of insulating material surrounding the first layer and a second layer of semiconducting material surrounding the insulating material, for the purpose of increasing the output voltage to a

Art Unit: 2834

level that allows connecting the generator directly to the power network without using a transformer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the assembly as taught by Belik and to provide the stator wound with a high- voltage cable provided with a core of conducting material, a first layer of semiconducting material surrounding the conducting material, a layer of insulating material surrounding the first layer and a second layer of semiconducting material surrounding the insulating material as taught by Larsson et al. for the purpose of increasing the output voltage to a level that allows connecting the generator directly to the power network without using a transformer.

It would have been further obvious to one having ordinary skill in the art to wound the stator for three-phase for the purpose of connecting the stator directly to a three-phase power network.

Prior Art

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (571) 272-2037. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph Waks/
Primary Examiner, Art Unit 2834

July 2, 2008